



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,119	07/03/2003	Dean Nobunaga	400.239US01	7175
27073	7590	07/18/2006	EXAMINER	
LEFFERT JAY & POLGLAZE, P.A. P.O. BOX 581009 MINNEAPOLIS, MN 55458-1009				ELAMIN, ABDELMONIEM I
ART UNIT		PAPER NUMBER		
		2116		

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/613,119	NOBUNAGA, DEAN
	<b>Examiner</b>	<b>Art Unit</b>
	Abdelmoniem Elamin	2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 04 May 2006.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Lin, US. Pat.

No. 6,839,860 in view Yee US. Pat. No. 6,529,057.

5. Claim 1, Lin teaches a fast data access circuit [*the circuit of Fig. 2*], having a standard clock input signal [*CLKIN of Fig. 2*], comprising:

a clock delay circuit that provides a selectable time delay to the standard clock input signal to produce a delayed clock signal [*slave DLL 114 of Fig. 2*];

a control circuit that generates a mode control signal [*SEL 156 of Fig. 2*];

a multiplexing circuit having a first input coupled to the standard clock input signal and a second input coupled to the delayed clock signal [*MUX 116 of Fig. 2*], the multiplexing circuit outputting a selected clock in response to the mode control signal [see Fig. 2]; and

a data output register, coupled to the multiplexing circuit and an input data bit, for outputting the input data bit in response to the selected clock [*130 of Fig. 2*].

Lin fails to teach generating a delayed clock signal from a plurality of selectable time delays.

Yee teaches a clock delay circuit [*see Fig. 5*] that generates a delayed clock signal from a plurality of selectable time delays [*84, 86 and 88 of Fig. 5*].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lin to include generating a delayed clock signal from a plurality of selectable time delays, because it allows using different number of delay elements [*see Yee col. 8, lines 20-25*].

5. Claim 2, Lin teaches the data output register is a data first-in-first-out (FIFO) register [*inherently, a FIFO is used to buffer output data*].
6. Claim 3, Lin teaches a data FIFO register control logic, coupled between the multiplexing circuit and the data FIFO register, for generating FIFO control signals in response to the selected clock [*clock tree circuit 170 of Fig. 2, col. 4, lines 21-32*].
7. Claims 4, Lin teaches the control circuit comprises a mode/configuration register that generates the mode control signal in response to a loaded configuration word [*generating shifting signals to controller 146 of Fig. 5 to adjust the amount of delay applied to the CLCIN, see Fig. 5, col.6, lines 32-37*].
8. Claims 5, 6, 8-12, 14, 18-22, Lin teaches the loaded configuration word is in response to a frequency of the standard clock input signal [*the configuration word is produced by signal detector in response to the frequency of CLKIN, see Fig. 5, col.6, lines 32-37*]; wherein the selectable time delay is selected in response to the loaded configuration word [*Col. 6, lines 32-37*].
9. Claims 7, Lin teaches the input data bit is part of a data stream from a memory array [*see data 124 of Fig. 2 and related disclosure*].
10. Claims 13, Lin teach each of the plurality of delay circuits comprises a plurality of inverter gates [*see Fig. 5*].

11. Claims 15, Lin teaches a burst counter for generating a plurality of sequential addresses, within a predetermined address range, to the array of memory cells such that a plurality of data is accessed within the predetermined address range [*Figs. 7 and 8, col. 7, lines 30-45, 60 thru col. 8, line 6*].
12. Claims 16, Lin teaches data output register control logic that generates a plurality of data output register control signals from the selected clock signal [*clock tree circuit 170 of Fig. 2, col. 4, lines 21-32*].
13. Claims 17, Lin teaches the data rate is determined by the data output register control signals [*col. 4, lines 21-32*].

***Response to Arguments***

Applicant's arguments with respect to claim 1-22 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelmoniem Elamin whose telephone number is 571-2727-3674. The examiner can normally be reached on MON - THUR 10:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A. Elamin  
Primary Examiner  
A.U. 2116

July 9, 2006